Cyber

[PUT A STOP TO CRIME]

Security system and convenience

[USER GUIDE]

MODEL 110XV

Limited Consumer Warranty

For a period of five calendar year from the date of purchase of this device, Directed Electronics, Inc. promises to the ORIGINAL PURCHASER to repair or replace (with a comparable reconditioned model), free of cost, any electronic control module which proves to be defective in workmanship or material under normal use, SO LONG AS THE SYSTEM WAS SOLD, INSTALLED, AND SERVICED BY A PROFESSIONAL AUTO INSTALLER, AND REMAINS IN THE CAR IN WHICH THE SYSTEM WAS ORIGINALLY INSTALLED. If warranty service is necessary you must have a clear copy of your sales receipt containing all of the information shown on the following page.

After the fifth calendar year, from the date of purchase of this device, Directed Electronics, Inc., promises to the ORIGINAL PURCHASER to repair or replace (with a comparable reconditioned model) any electronic control module which proves to be defective in workmanship or material under normal use **FOR A CHARGE OF $45.00,** SO LONG AS THE SYSTEM WAS SOLD, INSTALLED, AND SERVICED BY A PROFESSIONAL AUTO INSTALLER, AND REMAINS IN THE CAR IN WHICH THE SYSTEM WAS ORIGINALLY INSTALLED. If warranty service is necessary you must have a clear copy of your sales receipt containing all of the information shown on the following page.

This warranty contains the entire agreement relating to warranty and supersedes all previous and contemporaneous representations or understandings, whether written or oral. IN ANY EVENT, DIRECTED ELECTRONICS, INC. IS NOT LIABLE FOR THE THEFT OF THE VEHICLE AND/OR ITS CONTENTS.

This warranty is void if the product has been damaged by accident, unreasonable use, neglect, improper service or other causes not arising out of defects in materials or construction. This warranty is nontransferable and does not apply to any unit that has been modified or used in a manner contrary to its intended purpose and does not cover batteries. The unit in question must be returned to the manufacturer, postage prepaid. This warranty does not cover labor costs for the removal, diagnosis, troubleshooting or reinstallation of the unit. For service on an out-of-warranty product a flat rate fee by model is charged. Contact your authorized dealer to obtain the service charge for your unit.

These systems are a deterrent against possible theft. Directed Electronics, Inc. is not offering a guarantee or insuring against the theft of the automobile or its contents and disclaims any liability for the theft of the vehicle and/or its contents. Directed Electronics does not authorize any person to create for it any other obligation or liability in connection with this security system.

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IMPORTANT NOTE:
This product warranty is automatically void if its date code or serial number is defaced, missing, or altered. This warranty will not be valid unless you have completed the warranty card and mailed it to Directed Electronics, Inc. within 10 days after purchase to the address listed on the warranty registration card.

Make sure you have all of the following information from your dealer:

A clear copy of the sales receipt, showing the following:

- Date of purchase
- Your full name and address
- Authorized dealer's company name and address
- Type of system installed
- Year, make, model and color of the automobile
- Automobile license number
- Vehicle identification number
- All security options installed on automobile
- Installation receipts

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standard transmitter configuration

controls the **Arm** and **Panic** On/Off function.

controls the **Disarm** and **Panic** Off function.

controls **Silent Mode™** and **Auxiliary** channel **2** output.

controls the **Remote Start** function.

and pressed together control the **Timer** mode.

and pressed together control **Turbo/Short Run**.

and pressed together control channel **4** output.

and pressed together control channel **5** output

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what is included

- A control module
- An XHF receiver/antenna
- Two four-button transmitters
- A Stinger™ DoubleGuard® two-stage shock sensor
- A Revenger™ Soft Chirp™ six-tone programmable siren
- A status LED indicator light
- A push-button Valet® switch
- Your warranty registration
- A shut-down toggle switch

important information

Congratulations on the purchase of your combination remote start alarm system. Due to the complexity of this system, it must be installed by an authorized dealer only. Installation of this product by anyone other than an authorized dealer voids the warranty. All dealers are provided with a preprinted dealer certificate to verify authorization.

By carefully reading this Owner's Guide prior to using your system, you will maximize the use of this system and its features. You can print additional or replacement copies of this manual by accessing our web site at www.directed.com.

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➜ system maintenance

The system requires no specific maintenance. Your remote is powered by a small, lightweight 3-volt lithium battery that will last approximately one year under normal use. When the battery begins to weaken, operating range will be reduced and the LED on the remote will dim.

➜ your warranty

Your warranty registration must be completely filled out and returned within 10 days of purchase. Your product warranty will not be validated if your warranty registration is not returned. Make sure you receive the warranty registration from your dealer. It is also necessary to keep your proof of purchase, which reflects that the product was installed by an authorized dealer.

➜ fcc/id notice

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.

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➜ caution

This product is designed for fuel injected, automatic transmission vehicles only. Use of this product in a standard transmission vehicle is dangerous and contrary the product's intended use.

transmitter functions

The receiver uses a computer-based Learn Routine to learn the transmitter buttons. This makes it possible to assign any remote transmitter button to any receiver function. The transmitter initially comes programmed with Standard Configuration, but may also be customized by an authorized dealer. The buttons in all of the instructions in this manual correspond to a Standard Configuration transmitter.

➜ standard configuration

Button

The arming and panic functions are controlled by pressing this button for one second.

Button

The disarming function is controlled by pressing this button for one second.

Button

Silent Mode™ and an optional auxiliary function are controlled by this button. (Silent Mode works by pressing this button for

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less than one second before arming or disarming. An optional auxiliary function, such as trunk release, can be controlled by pressing this button for 1.5 seconds.)

The auxiliary output controls _____.

Button

The remote start function of your system is controlled by pressing this button twice within 3 seconds.

and **Buttons**

An optional auxiliary convenience or expansion function that you have added to your system can be activated by pressing these buttons simultaneously.

The auxiliary output controls _____.

and **Buttons**

An optional auxiliary convenience or expansion function that you have added to your system can be activated by pressing these buttons simultaneously.

The auxiliary output controls _____.

and **Buttons**

The remote start timer mode is controlled by pressing these buttons simultaneously.

and **Buttons**

The short-run turbo mode is activated when these buttons are pressed simultaneously.

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➜ warning! safety first

The following safety warnings must be observed at all times:

- Due to the complexity of this system, installation of this product must only be performed by an authorized Directed dealer.
- When properly installed, this system can start the vehicle via a command signal from the remote control transmitter. Therefore, never operate the system in an enclosed area or partially enclosed area without ventilation (such as a garage). When parking in an enclosed or partially enclosed area or when having the vehicle serviced, the remote start system must be disabled using the installed toggle switch. It is the user's sole responsibility to properly handle and keep out of reach from children all remote control transmitters to assure that the system does not unintentionally remote start the vehicle. THE USER MUST INSTALL A CARBON MONOXIDE DETECTOR IN OR ABOUT THE LIVING AREA ADJACENT TO THE VEHICLE. ALL DOORS LEADING FROM ADJACENT LIVING AREAS TO THE ENCLOSED OR PARTIALLY ENCLOSED VEHICLE STORAGE AREA MUST AT ALL TIMES REMAIN CLOSED. These precautions are the sole responsibility of the user.
- Use of this product in a manner contrary to its intended

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mode of operation may result in property damage, personal injury, or death. (1) Never remotely start the vehicle with the vehicle in gear, and (2) Never remotely start the vehicle with the keys in the ignition. The user must also have the neutral safety feature of the vehicle periodically checked, wherein the vehicle must not remotely start while the car is in gear. This testing should be performed by an authorized Directed dealer in accordance with the Safety Check outlined in the product installation guide. If the vehicle starts in gear, cease remote start operation immediately and consult with the authorized Directed dealer to fix the problem.

- After the remote start module has been installed, contact your authorized dealer to have him or her test the remote start module by performing the Safety Check outlined in the product installation guide. If the vehicle starts when performing the Neutral Safety Shutdown Circuit test, the remote start unit has not been properly installed. The remote start module must be removed or the installer must properly reinstall the remote start system so that the vehicle does not start in gear. All installations must be performed by an authorized Directed dealer. OPERATION OF THE REMOTE START MODULE IF THE VEHICLE STARTS IN GEAR IS CONTRARY TO ITS INTENDED MODE OF OPERATION. OPERATING THE REMOTE START SYSTEM UNDER THESE CONDITIONS MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY. YOU MUST IMMEDIATELY CEASE THE USE OF THE

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UNIT AND SEEK THE ASSISTANCE OF AN AUTHORIZED DIRECTED DEALER TO REPAIR OR DISCONNECT THE INSTALLED REMOTE START MODULE. DIRECTED WILL NOT BE HELD RESPONSIBLE OR PAY FOR INSTALLATION OR REINSTALLATION COSTS.

➜ active arming

You can arm the system by pressing of your transmitter for one second. When the system arms, you will hear a short siren sound, or chirp, and see the parking lights flash once. If the power door locks are controlled by the system, the doors will also lock. While the system is armed, the status LED will flash approximately once per second, indicating that the system is actively protecting your vehicle. If you hear a second chirp after arming and note that the status LED is flashing in groups, see the Diagnostics Section of this guide. This extra chirp is called Bypass Notification.

➜ passive arming

The system can be programmed to arm itself automatically (called passive arming). If the system is programmed for passive arming, it will automatically arm 30 seconds after the ignition is turned off and the system detects that you have left the vehicle by opening and closing a door. Whenever the system is in its 30-second passive arming countdown, the status LED will flash twice as fast as it does when the system is armed. At the 20-second point of the count-

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down, the siren will chirp to indicate that the system is about to arm. At the 30-second point, the parking lights will flash to indicate that the system is armed.

> **note:** If any protected entry point (such as a door or a switch-protected trunk or hood) is open, the system will not passively arm (unless forced passive arming is programmed on. See Programming Options section.) Additionally, each time a sensor is triggered during the arming countdown, the 30-second countdown starts over.

When armed your vehicle is protected as follows:

- Light impacts trigger the Warn Away® signal. When triggered, the siren chirps and the parking lights flash for a few seconds.
- Heavy impacts trip a Triggered Sequence. The sequence consists of the siren sounding continuously and the parking lights flashing for a pre-programmed period, which can range in duration from 1 to 180 seconds.
- If a door is opened, the system will immediately start chirping the siren and flashing the parking lights. Three seconds later, the siren output changes to a continuous blast. This progressive response gives you time to disarm the system with your transmitter if you inadvertently open the door while the system is armed, while still providing instant response (even if the door is immediately closed).
- Turning on the ignition key will trip the same progressive response as opening a door.
- The optional starter kill prevents the vehicle's starter from cranking.

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➜ multi-level security arming

Multi-Level Security Arming allows you to select which of the system's inputs or sensors will be active and which will be bypassed when the system is armed. (See *Table of Zones* section of this guide.) Pressing (only in Standard Configuration) again within five seconds of arming the system will activate the Multi-Level Security feature. Each time is pressed again, a different security level is selected. The different security levels are selected as follows:

- Press once: The siren chirps once. The system is armed.
- Press a second time within five seconds: The siren chirps twice followed by a long chirp. Zone 2 is now bypassed.
- Press a third time within five seconds: The siren chirps three times followed by a long chirp. Zone 4 is now bypassed.
- Press a fourth time within five seconds: The siren chirps four times followed by a long chirp. Zones 2 and 4 are now bypassed.
- Press a fifth time within five seconds: The siren chirps five times followed by a long chirp. All input zones, except the ignition, are now bypassed.

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note: Multi-Level Security Arming only applies to a single arming cycle. Once the system is disarmed and then re-armed, all the zones will be active again.

➜ arming while driving

Your security system can be armed while driving the vehicle! Simply press on the transmitter for two seconds while the vehicle is running. The siren will chirp once to indicate that the security system is armed, and then once more to indicate that the ignition is on. The system will not respond to any input except the door triggers, and the starter kill relay (if installed) will not be activated. Once you have arrived at your destination, the system will disarm when the ignition is turned off. The siren will chirp twice and the LED will then stop flashing. The system can also be disarmed at any time by pressing .

➜ disarming

To disarm the security system, press . You will hear two chirps, and the parking lights will flash twice. If the power locks are controlled by the system, the doors will also unlock. The siren chirping either four or five times when disarming indicates Tamper Alert, which is described in the Diagnostics Section of this guide.

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➜ high security disarm

This security system offers High Security Disarm. High Security Disarm is a feature that makes it possible to silence and reset the system while it is triggering, without disarming the system. If the system is triggered and the siren has been sounding for longer than six seconds, pressing on the remote transmitter will stop the trigger and return the unit to the armed state. The system will not disarm, but rather reset. This prevents you from disabling the system should you wish to disarm it without visually checking the vehicle. Pressing after resetting the system will disarm the system; pressing this button during the first six seconds of the triggered sequence will disarm the security system immediately. The six second timer is provided for your convenience, in case the system is accidentally triggered.

➜ disarming without a transmitter

If your remote transmitter is lost or damaged, you can manually disarm your vehicle security system. To disarm the system without a transmitter, you must have the vehicle's ignition key and know where the Valet® switch is located. Be sure to check with your installer at the time of installation for both the location and the preset response (1-5 presses) of the Valet® switch.

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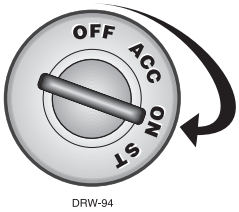
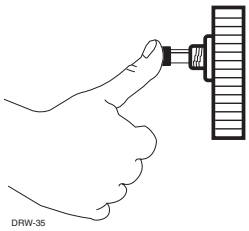


DRW-94

To disarm the security system, turn the ignition to the ON position. Press the Valet button the preset number of times (one to five times) within 15 seconds. After five seconds, the system will disarm. If the system does not disarm, you may have waited too long; turn the ignition off and on and try again.


DRW-35

Location of Valet Button_____

Number of Presses_____

> **important!** The Valet® switch can be programmed to respond to 1-5 presses for the disarm function. You must check with the installer to verify the programming for your individual unit.

➜ silent mode

To temporarily turn off the arm or disarm chirps, use Silent Mode™. Simply press for less than one second before arming or disarming, and the confirmation chirp(s) will be eliminated for that one operation only. If you want the arm/disarm chirps turned off permanently, your dealer can do this for you.

> **note:** The Warn Away® response to lighter impacts is bypassed if the system is armed using Silent Mode. This ensures that no chirps will be emitted by the siren in an area you want chirp-free. The system is still fully capable of triggering. Only the Warn Away® response is bypassed.

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➜ panic mode

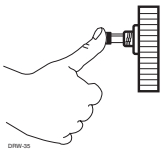
If you are threatened in or near your vehicle, you can attract attention by triggering the system with your transmitter. Just press for two seconds, and you will enter Panic Mode. The siren will sound and the parking lights will flash for the programmed siren duration. To stop Panic Mode at any time, press on the remote transmitter again.

➜ valet mode

You can prevent your security system from automatically arming and triggering by using Valet Mode. This is very useful when washing the vehicle or having it serviced. In Valet Mode, the security system will not arm, even with the remote transmitter, but all convenience functions (door locks, trunk release, etc.) will continue to work normally.

To enter or exit Valet Mode:

1. Turn the ignition on.
2. Turn the ignition off.
3. Press and release the Valet switch within 10 seconds.



The status LED will light solidly if you are entering Valet Mode, and it will go out if you are exiting Valet Mode.

To enter or exit Valet Mode using the transmitter:

1. Open any vehicle door.
2. Press .

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3. Press .
4. Press again.

The status LED will light solidly if you are entering Valet Mode, and it will go out if you are exiting Valet Mode.

➜ remote start

This feature allows you to remotely start and run your vehicle for a programmable period of time. This makes it possible to warm up the engine, as well as adjust the interior temperature of the vehicle with the climate control system. If interior heating or cooling is desired, the climate controls must be preset, and the fan blower must be set to the desired level prior to remote starting the vehicle.

> **important!** (1) Never remote start your vehicle when the keys are in the ignition, except when performing Valet® Take-Over, and (2) Never start the vehicle if it is not in either PARK or NEUTRAL.

To remote start the vehicle:

1. Press on the transmitter twice within 3 seconds.
2. The parking lights will flash to confirm that the vehicle will attempt to start.
3. In gasoline vehicles, the engine will start 4 seconds after the parking lights flash. In diesel vehicles, the engine will start when the WAIT-TO-START indicator on the vehicle's dash goes out.
4. Once the vehicle has started, it will run for the pre-program-

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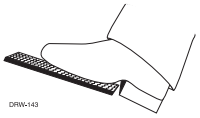
med period of time (either 12, 24, or 60 minutes - see Programming Options section of this guide) or until a shut-down input is triggered.

> **important!** It is unsafe to operate a vehicle's motor in a garage or other closed off area. Breathing the exhaust from the vehicle is hazardous to your health. Never activate the remote start in an enclosed space.

When you are ready to drive the vehicle:

1. Insert the ignition key and turn it to the ON (not START) position.



2. Press the brake pedal.

> **note:** If the brake pedal is pressed before the key is in the ON position, the engine will shut down.

While the vehicle is running during remote start operation, the system will monitor the vehicle and will automatically shut down the engine if the system receives any of the following shut-down inputs:

- The brake pedal is pressed.
- The hood is opened.
- The shutdown toggle switch is put into the OFF position.
- The pre-programmed run time (12, 24, or 60 minutes) has elapsed.
- Transmitter buttons is pressed twice within 3 seconds.

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➜ valet take-over

The Valet® Take-Over feature allows the vehicle to remain running after the key has been removed from the ignition. This feature is useful for occasions when you wish to exit and lock the vehicle for short periods of time, but would like to leave the motor running and the climate controls on.

To perform Valet® Take-Over:

1. Before turning off the engine, press and release twice within 3 seconds on the transmitter (or press and release the optional momentary switch). Then wait five seconds.
2. Turn the ignition key to the OFF position. (The engine will stay running.)
3. The engine will run until the pre-programmed time elapses or a shut-down input is received. (See the previous *Remote Start* section for a complete list of shut-down inputs.)

> **note:** This feature will not work if the brake pedal is being pressed.

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➜ short-run/turbo

Short run turbo mode keeps the engine running after arriving at you destination for a programmable period of 1, 3, 5 or 10 minutes. This allows the system's timer to conveniently cool down the turbo after you have left the vehicle.

To activate:

1. Park the vehicle and set parking brake.

2. Remove your foot from the brake pedal and leave the engine running.

3. Press and release the and buttons at the same time.

4. The lights will flash to indicate the remote start has entered short run turbo mode.

5. Turn off the key, the engine will keep running.

6. Exit and secure the vehicle.

7. The engine will turn off after the programmed run time.

➜ timer mode

By pressing the remote and buttons the parking lights will flash 4 times and then start the vehicle and run for the set duration. The remote start can be shut off by the transmitter by pressing the remote start button and remain in timer mode, but if any other shut down zones or the ignition becomes

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active the timer mode will cancel.

1. Press Timer mode buttons.

2. The vehicle will confirm with 4 parking light flashes.

3. A 1-second delay will start.

4. The system will start the car and will run for the specified duration, unless shut down by the remote start button . If shut down with the remote start button the system will remain in timer mode.

5. The system will start every 3 hours until canceled by the brake, hood, or neutral safety shut-down wires.

> **important!** Timer Mode should be used only in open areas. Never start and run the vehicle in an enclosed space such as a garage or carport.

To exit timer mode, turn the ignition switch on any time the engine is running. The parking lights will flash 4 times, indicating timer mode has been exited.

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This system has several important safety features to ensure proper operation of the motor and prevent accidental damage to the engine or its components.

➜ starter anti-grind circuitry

Whenever the vehicle is remote started, advanced anti-grind circuitry prevents the starter from engaging, even if the key is turned to the start position. This prevents damage to the starter motor if the key is turned to the start position during remote start operation.

➜ disabling the remote start system

This feature allows your system's remote start unit to be temporarily disabled to prevent the vehicle from being remote started accidentally. This feature is useful if the vehicle is being serviced or stored in an enclosed area. To disable the remote start, move the shutdown toggle switch to the OFF position. The switch can be installed in a location of your choice. Check with your installer for recommended locations.

Location of Shutdown Switch_____

➜ over and under rev protection

The system monitors the engine speed and will automatically shut the engine off if the RPMs rise above or fall below the

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programmed levels. This feature prevents damage to the motor due to fuel delivery system failures or other problems which may cause the engine to race.

> **note:** The system uses a wire connected to the vehicle to sense engine speed. This wire must be connected in order for over and under rev protection to work.

➜ shut down inputs

This security system uses several inputs to shut down the remote start operation of the motor or prevent remote start if certain inputs are active. The two most important are hood and brake inputs. The hood input will prevent the motor from starting, as well as shut it down, any time the hood is opened. The brake pedal will shut down the motor at any time during remote start operation, as well as preventing the remote start from activating while it is being pressed.

➜ nuisance prevention circuitry

Your system has Directed's Nuisance Prevention Circuitry™ (NPC™). It prevents annoying repetitive trigger sequences due to faulty door pin switches or environmental conditions such as thunder, jackhammers, airport noise, etc.

Example

If the alarm triggers three times within a 60-minute period and each time the same sensor or switch triggers the alarm, NPC™ will interpret those triggers as false alarms. After the third trigger,

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NPC™ ignores, or bypasses, that sensor or switch (along with any other sensors or switches sharing the same zone) for 60 minutes.

If the bypassed sensor tries to trigger the security system while it is being bypassed, the 60-minute bypass period will start over. This ensures that a sensor that is continually being triggered will remain bypassed.

The vehicle doors are protected by NPC™ differently. If your security system is triggered by an open door for three full cycles, the system will bypass the doors until the trigger ceases.

> **note:** Arming and disarming the system does not reset this function! The only ways to reset a bypassed zone are for it to not trigger for 60 minutes, or to turn on the ignition. If testing your system, it is important to remember that the NPC™ programming can cause zones to be bypassed and appear to stop working. If five chirps are heard when disarming, NPC™ has been engaged. If you wish to clear the NPC™ memory, turn the ignition on.

diagnostics

The microprocessor at the heart of your system is constantly monitoring all of the switches and sensors connected to it. It is designed to detect any faulty switches and sensors and prevents them from disabling the entire system. The microprocessor will also record and report any triggers that occurred during your absence. Refer to the *System Status Chirps* and *Table of Zones* sections of this guide for diagnostic information.

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➜ arming diagnostics

If the security system is armed at the same time that an input is active (such as a door opening or sensor triggering), you will hear one siren chirp to indicate arming and a second siren chirp to indicate Bypass Notification. A Bypass Notification chirp means that the security system ignores the input that was active when the system was armed, until that input ceases. Three seconds after that input ceases, the security system will resume normal monitoring. For example, if your vehicle has an interior light exit delay and you arm your security system before the interior light turns off, you may hear a second Bypass Notification chirp. Once the light turns off, however, the security system resumes normal monitoring.

> **note:** Bypass Notification does not occur when the system is in Silent Mode or if the notification chirps have been programmed off by the installer.

➜ disarming diagnostics

Extra chirps that are heard when disarming the system are the Tamper Alert. If four chirps are heard when disarming the system, then the security system was triggered in your absence. If five chirps are heard when disarming the system, a zone was triggered so many times that the Nuisance Protection Circuitry™ has bypassed that zone. In either case, the status LED will indicate which zone was involved (see *Table of Zones* section). The security system will retain this information in its memory and chirp four or five times each time it is disarmed, until the next time that the ignition is turned on.

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➜ system status chirps

The siren will chirp when arming/disarming the system. The pattern of chirps will audibly report the system's status as described below.

Action	Number of Chirps	Description
Arm	1	System armed
Arm	1 (3-second delay), 1	System armed with Bypass Notification
Disarm	2	System disarmed
Disarm	4	System disarmed with Tamper Alert
Disarm	5	System disarmed NPC active

➜ table of zones

A zone is represented by the number of LED flashes used by the system to identify a particular type of input. Standard input assignments are listed in the following table, along with spaces to write in any optional sensors or switches that have been installed.

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ZONE (Number of LED Flashes)	DESCRIPTION	DEALER-INSTALLED OPTIONS
1	Trunk Pin	
2	Instant trigger - a heavier impact detected by the shock sensor	
3	Door switch trigger	
4	Instant trigger - for optional sensors	
5	Ignition trigger	
6	Hood Pin	

➜ interpreting zone diagnostics

Warn Away responses are not reported by arming or disarming diagnostics. If you receive a Bypass notification when arming or a Tamper Alert notification when disarming, look at the LED. Active or triggered zones will be indicated by a pattern of blinks by the LED.

Example

If zone 3 was active or triggered, the LED will blink three times with a two-second pause. Then it will blink three times again, and repeat until the ignition is turned on.

> **note:** Your system stores the last two triggered zones in memory. If your system has been triggered but the LED has been reset by turning on the ignition, your dealer can still recall the last two zones that were triggered. Contact your dealer for details.

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code hopping

The receiver and transmitters use a mathematical formula called an algorithm to change their code each time the transmitter is used. This technology has been developed to increase the security of the unit. The control unit knows what the next codes should be. This helps to keep the transmitter "in sync" with the control unit even if you use the remote control out of range of the vehicle. However, if the remote has been pressed many times out of range of the vehicle, or the battery has been removed, it may fall out of sync with the control unit and fail to operate the system. To re-sync the remote simply press several times within range of the vehicle. The alarm will automatically re-sync and respond to the transmitters normally.

high frequency

Your system transmits and receives at 434 MHz. This provides a cleaner spectrum with less interference and a more stable signal. Enjoy a phenomenal increase in range, even in areas with high radio interference.

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owner recognition

Owner Recognition is a revolutionary new feature available only from Directed. Using a Directed Bitwriter, hand-held programming tool, your dealer can program many of the system settings. The programmer makes it possible to program different settings for each transmitter that is used with the system. Then, whenever a specific transmitter is used, the system will recall the settings assigned to that transmitter. Owner Recognition lets up to four users of the system have different settings that meet their specific needs. It is almost like having four separate alarms in your vehicle, one for each user.

> **note:** Owner Recognition cannot be programmed without a Bitwriter and the necessary software. Check with your dealer for more information.

rapid resume logic

This Directed system will store its current state to non-volatile memory. If power is lost and then reconnected the system will recall the stored state from memory. This means if the unit is in Valet® Mode and the battery is disconnected for any reason, such as servicing the car, when the battery is reconnected the unit will still be in Valet® Mode. This applies to all states of the system including arm, disarm, and Valet® Mode.

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power saver mode

Your system will automatically enter Power Saver Mode while armed or in Valet® Mode, after a period of time in which no operation has been performed. This lowers the current draw on the vehicle's battery. Power Saver Mode takes over under the following conditions:

- Power Saver when the system is armed: After the system has been armed for 24 hours the LED will flash at half its normal rate, decreasing the system's current draw.
- Power Saver in Valet® Mode: When the system enters Valet® Mode the LED illuminates steadily. If the vehicle is not used (ignition is not turned on) for a one hour period while the system is in Valet® Mode, the LED will shut off. If the system remains in Valet® Mode, the LED will come back on the next time the ignition is turned on and then back off.

programming options

Programming options control your system's normal, operational set-up. Most options do not require additional parts, but some may require installation labor.

The following is a list of the programmable options, with the factory settings in Bold.

- **Active** arming (transmitter only) or passive arming (automatic arming 30 seconds after the last door has been closed).

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- Arming/disarming siren chirps **on** or off.
- The ignition controlled door lock feature **on** or off: When this feature is programmed on, the doors will lock three seconds after the ignition is turned on, and unlock when the ignition is turned off. If your installer is programming the security system with the Directed Bitwriter, ignition lock and unlock are independent features that can be programmed separately.
- Passive door locking (with passive arming) or **active door locking** (only when arming with the transmitter). Passive locking allows the vehicle's doors to lock when the security system passively arms (after the 30-second countdown). This feature only works if passive arming has been programmed.
- Panic mode **enabled**/disabled when the ignition is turned on. (Some states have laws against sirens sounding in moving cars.)
- Forced passive arming **on** or off. If your security system is programmed for passive arming and the forced passive arming feature has been programmed on, the system will passively arm after one hour, even if a protected entry has been left open. Forced passive arming ensures that the system will be armed if a door has accidentally been left ajar when leaving the vehicle.

> **note:** When the system passively arms after one hour, the entry point that has been left open, and anything connected to the same zone, is bypassed and cannot trigger the system. However, the remaining inputs to the system are fully operational.

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- Full trigger response **30** or 60 seconds: This determines how long the full triggered sequence lasts. Some states have laws regulating how long a security system can sound before it is considered a nuisance. If your installer is programming the security system with the Directed Bitwriter, the full triggered response can be programmed for any duration ranging from 1 to 180 seconds.
- Automatic Engine Disable (AED) on or **off**. The purpose of this feature is to protect the vehicle from being stolen at all times, regardless of whether or not the alarm is armed. If AED is programmed on, the starter of the vehicle will be disabled 30 seconds after the ignition is turned off. Once the key is turned off, the LED will flash slowly (one-half its normal armed rate) to indicate the AED arming cycle. Thirty seconds later, the starter will be disabled. To start the car, it will be necessary to disarm the system with the transmitter. It is also possible to disarm the AED feature by turning the ignition key to the RUN position and pressing the Valet® button the programmed number of times. AED is also disabled when the system is in Valet® mode.

> **note:** This feature will only function if the FailSafe® Starter Kill relay has been installed.

- Siren tones and chirp volume. The output of the Revenger™ Soft Chirp™ siren consists of six different tones in sequence. Any of these tones can be eliminated by a dealer, resulting in a unique, easily identifiable siren sound. The chirps can be either

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full volume or **6 decibels quieter** than the full alarm blast.

- The engine can be programmed to run for any duration ranging from 1 to 60 minutes. **12 minutes** is the default. After the programmed run time, the engine will shut down and will not restart, unless in Timer Mode.
- While the remote start system is running the engine, the parking lights of the vehicle can **flash on and off** or come on and light steadily.

security & convenience expansions

Listed below are some of the many expansion options available. Please consult your dealer for a complete explanation of all the options available to you.

Audio Sensor: Metal on glass, glass cracking, and breaking glass produce distinctive acoustic signatures. The 506T audio sensor uses a microphone to pick up sounds, then analyzes them with proprietary acoustic software to determine if the glass has been struck.

Backup Battery: The 520T keeps the system armed, triggers the alarm and keeps the starter interrupt active if main battery is disconnected.

Hood Lock: Prevents the vehicle's hood from being opened without a key, keeping thieves away from the system's siren, the battery connections, and other components under the hood.

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Field Disturbance Sensor: An invisible dome of coverage is established by installing the 508D “radar” sensor. Your system can react to any intrusions into this field with the full triggered sequence.

Power Locks: This system offers lock outputs that can control some manufacturers' power door lock systems. For other systems, additional parts may be required.

Power Trunk Release: The accessory output of the system can operate a factory power release for the vehicle’s trunk or hatch. Although the on-board relay can control most power trunk releases, sometimes an optional relay is required. If the factory release is not power-activated, Directed®'s 522T trunk release solenoid can often be added.

Power Window Control: Automatic power window control is provided with the 529T and 530T systems. These can operate power windows, and can roll them up automatically when the system is armed, roll them down, or both up and down.

Mobile Video: This system is compatible with Directed Video’s MCB1000 Multi-Channel Controller, featuring on-screen security system programming and zone trigger information.

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glossary of terms

Control Unit: The "brain" of your system. Usually hidden underneath the dash area of the vehicle. The control unit houses the microprocessor which monitors your vehicle and controls all system functions.

Fault-Proof Starter Interrupt: An automatic switch controlled by your system that prevents the vehicle's starter from cranking whenever the system is armed. The vehicle is never prevented from cranking when the system is disarmed, in Valet Mode, or if the starter interrupt switch itself fails. Your system has feature-ready circuitry for the starter interrupt, however installation may require additional labor.

Input: A physical connection to the system. An input can be provided by a sensor, pinswitch or by existing systems in the vehicle, such as ignition or courtesy lights.

LED: A red light mounted at a discretionary location inside the vehicle. It is used to indicate the status of your system.

Shock Sensor: This system has a dual zone shock sensor. This sensor is mounted in the vehicle and designed to pick up impacts to the vehicle or glass.

Transmitter: A hand-held, remote control which operates the various functions of your system.

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Trigger or Triggered Sequence: This is what happens when the alarm "goes off" or "trips." The triggered sequence of your system consists of the siren sounding and parking lights flashing for the programmed duration.

Valet Switch: A small push button mounted at a discretionary location inside the vehicle. It is used to override the starter interrupt when a transmitter is lost or damaged, or to enter or exit Valet Mode.

Warning Zone Response: Lighter impacts to the vehicle will generate the Warning Zone response. It consists of several seconds of siren chirps and parking light flashes.

Zone: A zone is a separate input that the alarm can recognize as unique. Each input to the system is connected to a particular zone. Often two or more inputs may share the same zone.

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Cut along dotted line and fold for a quick and easy reference to keep in your purse or wallet.

QUICK REFERENCE GUIDE

Arming

- To arm, press . When the system arms, you will hear a short chirp, and the parking lights will flash once.

Arming while driving

- To arm the system while driving, press on your transmitter while the vehicle is running. The system will chirp once and then once more to indicate that the ignition is on.

Disarming

- To disarm, press . You will hear two chirps, and the parking lights will flash twice.

High security disarm

- For high security disarm, press on your transmitter and the siren will stop sounding. To completely disarm the security system, press again and the system will chirp 4 or 5 times (reporting the trigger).

Disarming without a transmitter

- Turn on the ignition. Press the Valet® switch within 15 seconds. The system should now disarm. If it does not, you may have waited too long, so turn the ignition off and on and try again.

Silent Mode™

- Pressing briefly before arming or disarming will eliminate the confirmation chirp(s) for that one operation only.

Panic Mode

- Press for 2 seconds, and you will enter Panic Mode. The siren will sound and the parking lights will flash for 30 seconds. To stop Panic Mode at any time, press on the transmitter again.

To remote start the vehicle

- Press twice within 3 seconds. The parking lights will turn on (if connected) and the vehicle will start and run for the programmed period of time.

To disable the remote start system

- To disable the remote start, move the shutdown toggle switch to the OFF position.

Location of Valet® switch_____

Number of Valet® switch pulses for disarming_____

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Notes

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The company behind this system is Directed Electronics, Inc.

Since its inception, Directed Electronics has had one purpose, to provide consumers with the finest vehicle security and car stereo products and accessories available. The recipient of nearly 100 patents and Innovations Awards in the field of advanced electronic technology, Directed is ISO 9001 registered.

Quality Directed Electronics products are sold and serviced throughout North America and around the world.

Call **(800) 361-7271** for more information about our products and services.

ISO 9001

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driven to excel

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